

Title (en)

METHOD, DEVICES AND COMPUTER PROGRAM FOR DETERMINING A CLOSE-UP VIEWPOINT

Title (de)

VERFAHREN, VORRICHTUNGEN UND COMPUTERPROGRAMM ZUM BESTIMMEN EINES NAH-DURCHBLICKPUNKTES

Title (fr)

PROCÉDÉ, DISPOSITIFS ET PROGRAMME INFORMATIQUE DE DÉTERMINATION D'UN POINT VISUEL PROCHE

Publication

EP 3702832 A1 20200902 (DE)

Application

EP 19219216 A 20180608

Priority

- EP 17174925 A 20170608
- EP 18728655 A 20180608
- EP 2018065177 W 20180608

Abstract (en)

[origin: WO2018224655A1] The invention relates to methods and devices for determining a near-vision point. A person under examination looks at a movable near-vision target (60), and an image of the person is captured using a camera device (62). The orientation and/or position of the near-vision target (60) is also determined. The near-vision point is then determined therefrom.

Abstract (de)

Es werden Verfahren und Vorrichtungen zur Bestimmung eines Nahdurchblickpunktes bereitgestellt. Dabei blickt eine zu untersuchende Person auf ein bewegliches Nahblickziel (60), und ein Bild der Person wird mit einer Kameraeinrichtung (62) aufgenommen. Zudem wird Orientierung und/oder Position des Nahblickziels (60) bestimmt. Hieraus wird dann der Nah-Durchblickpunkt bestimmt.

IPC 8 full level

G02C 13/00 (2006.01)

CPC (source: EP KR US)

A61B 3/0025 (2013.01 - US); **A61B 3/0091** (2013.01 - US); **A61B 3/04** (2013.01 - KR); **A61B 3/10** (2013.01 - KR); **A61B 3/113** (2013.01 - US); **A61B 3/14** (2013.01 - US); **G02C 7/024** (2013.01 - KR); **G02C 7/027** (2013.01 - US); **G02C 13/005** (2013.01 - EP KR)

Citation (applicant)

- JP 2005342186 A 20051215 - HOYA CORP
- US 2014009737 A1 20140109 - KWEON HYUK JE [KR]
- US 2010149486 A1 20100617 - SAYAG JEAN-PHILIPPE [FR]
- US 2003123026 A1 20030703 - ABITBOL MARC [IL], et al
- DE 10300188 A1 20040722 - OLLENDORF HANS-JOACHIM [DE]
- EP 2913704 A1 20150902 - NIDEK KK [JP]
- WO 2014061294 A1 20140424 - NAKAMURA SHOICHI [JP], et al
- FR 3021205 A1 20151127 - ESSILOR INT [FR]
- DE 102011009646 A 20110127
- US 2002105530 A1 20020808 - WAUPOTITSCH ROMAN [US], et al
- EP 2963482 A1 20160106 - HOYA CORP [JP]
- US 2014293219 A1 20141002 - HADDADI AHMED [FR], et al
- EP 3270099 A1 20180117 - HOYA LENS THAILAND LTD [TH]
- EP 1038495 A2 20000927 - NIDEK KK [JP]
- US 2016011437 A1 20160114 - NISHIMURA HIDETOSHI [JP], et al
- DE 102011009646 A1 20120802 - OLLENDORF HANS-JOACHIM [DE]
- WO 2017064060 A1 20170420 - ESSILOR INT [FR]
- DE 102014200637 A1 20150716 - ZEISS CARL VISION INT GMBH [DE]
- DE 102005003699 A1 20060727 - RODENSTOCK GMBH [DE]
- JP 2003329541 A 20031119 - MITSUKI TSUZUKI SYSTEM KK, et al
- EP 17153559 A 20170127
- EP 17153556 A 20170127
- EP 17153651 A 20170127
- US 6944320 B2 20050913 - LIU ZICHENG [US], et al
- US 7149330 B2 20061212 - LIU ZICHENG [US], et al
- US 2003123026 A1 20030703 - ABITBOL MARC [IL], et al
- US 2002105530 A1 20020808 - WAUPOTITSCH ROMAN [US], et al
- US 2016327811 A1 20161110 - HADDADI AHMED [FR], et al
- EP 17173929 A 20170601
- EP 17153538 A 20170127
- T. DEDEK: "Entwurf und Implementierung einer Objektverfolgung unter Verwendung einer Smart-Camera mit PTZ-Funktionalität", BACHELORARBEIT, 2009, Retrieved from the Internet <URL:<https://www.ipi.uni-hannover.de/fileadmin/institut/pdf>>
- BENNETT, A.RABBETTS, R.: "Clinical Visual Optics", 1998, pages: 143,144
- RAU J-YEEH P-C.: "A Semi-Automatic Image-Based Close Range 3D Modeling Pipeline Using a Multi-Camera Configuration", SENSORS, vol. 12, no. 8, 2012, pages 11271 - 11293
- M. NIESSNERM. ZOLLHÖFERS. IZADIM. STAMMINGER: "Real-time 3D reconstruction at scale using voxel hashing", ACM TRANS. GRAPH., vol. 32, November 2013 (2013-11-01), pages 6
- H. HIRSCHMULLER: "Stereo Processing by Semiglobal Matching and Mutual Information", IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, vol. 30, no. 2, February 2008 (2008-02-01), pages 328 - 341, DOI: 10.1109/TPAMI.2007.1166

Citation (search report)

- [AD] EP 1038495 A2 20000927 - NIDEK KK [JP]
- [AD] US 2016011437 A1 20160114 - NISHIMURA HIDETOSHI [JP], et al
- [AD] WO 2017064060 A1 20170420 - ESSILOR INT [FR]
- [AD] DE 102014200637 A1 20150716 - ZEISS CARL VISION INT GMBH [DE]
- [AD] DE 102005003699 A1 20060727 - RODENSTOCK GMBH [DE]

- [AD] DE 102011009646 A1 20120802 - OLLENDORF HANS-JOACHIM [DE]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3413122 A1 20181212; EP 3413122 B1 20200304; CN 110998417 A 20200410; CN 110998417 B 20210806; EP 3635478 A1 20200415;
EP 3635478 B1 20201021; EP 3702832 A1 20200902; EP 3702832 B1 20210602; KR 102195268 B1 20201228; KR 20200006621 A 20200120;
US 10890784 B2 20210112; US 2020110280 A1 20200409; WO 2018224655 A1 20181213

DOCDB simple family (application)

EP 17174925 A 20170608; CN 201880051535 A 20180608; EP 18728655 A 20180608; EP 19219216 A 20180608; EP 2018065177 W 20180608;
KR 20207000203 A 20180608; US 201916707112 A 20191209